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Stockmann, Daniela, Luo, Ting and Shen, Mingming (2019) Designing authoritarian deliberation: how social media platforms influence political talk in China. *Democratization*, 27 (2). pp. 243-264. ISSN 1351-0347

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**Downloaded from:** <https://e-space.mmu.ac.uk/624880/>

**Version:** Accepted Version

**Publisher:** Informa UK Limited

**DOI:** <https://doi.org/10.1080/13510347.2019.1679771>

Please cite the published version

# **Designing Authoritarian Deliberation: How Social Media Platforms Influence Political Talk in China**

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## **Funding statement**

The research leading to these results has received funding from the European Research Council under the European Union's Seventh Framework Programme (FP/2007-2013) / ERC Grant Agreement n. [338478]. The Hertie School of Governance and Leiden University are both beneficiaries of the grant.

## **Acknowledgements**

This paper is dedicated to the memory of the late Mayling Birney (1972-2017) whose research on voicing opinions in Chinese surveys inspired this research. For insightful comments and feedback regarding earlier versions of this research we would like to thank Lily Tsai, Pierre Landry, Devra Coren-Moehler, Liz Suhay, Rosario Aguilar, and the participants of talks at Duke University, the University of Michigan, the University of Pennsylvania, New York University – Shanghai, the London School of Economics and Political Science, and the Hertie School of Governance. For superb research assistance we are grateful to Keri Hartman, Yuzhu Zhang and Hanyu Jiang.

# **Designing Authoritarian Deliberation: How Social Media Platforms Influence Political Talk in China**

Discussion is often celebrated as a critical element of public opinion and political participation. Recently, scholars have suggested that the design and features of specific online platforms shape what is politically expressed online and how. Building on these findings and drawing on 112 semi-structured qualitative interviews with information and communications technology experts and Internet users, we explain how major Chinese social media differ in structure and in the company's motivation. Drawing upon a nationwide representative survey and an online experiment, we find that platforms aiming to make users a source of information through public, information-centered communication, such as the Twitter-like Weibo, are more conducive to political expression; while platforms built to optimize building social connections through private, user-centered communication, such as the WhatsApp and Facebook-like WeChat, tend to inhibit political expression. These technological design effects are stronger when users believe the authoritarian state tolerates discussion, but less important when political talk is sensitive. The findings contribute to the debate on the political consequences of the Internet by specifying technological and political conditions.

Keywords: Authoritarianism; social media; technology; China; political sensitivity; deliberation; political talk.

## **Introduction**

The Internet is often regarded as contributing to the democratic process by giving citizens opportunities to engage in political talk and assess conflicting ideas. In spaces for public conversation, the Internet is credited with creating a new public sphere like that envisioned by Habermas.<sup>1</sup> Other scholars have conversely emphasized the Internet's potential to damage deliberative ideals by facilitating exposure to like-minded views, encouraging incivility, or

decreasing satisfaction.<sup>2</sup>

While early research focused on assessing the effects of the online environment more generally on political discourse,<sup>3</sup> more recently scholars have suggested that the design and features of specific online platforms shape how and what is politically expressed online.<sup>4</sup> These arguments relate to a broader debate about the circumstances that facilitate deliberation with positive outcomes for democracy, and whether real-world discussions meet these conditions.<sup>5</sup> Although there is agreement that circumstances for political expression are quite important, little is known about what technological designs are conducive to political expression.

A major obstacle for advancing research in this area are difficulties drawing representative conclusions about user activity on popular social media platforms like Twitter and Facebook that have a global user base and operate in multiple languages. We take advantage of the Great Chinese Firewall and the linguistic preferences of Chinese Internet users locking the majority of Chinese users in domestic websites and social media platforms. Focusing on China thus enables us to draw representative conclusions about user behaviour on Weibo and WeChat – arguably the two most important social media platforms in Chinese political discourse. Furthermore, focusing on China allows us to control for variation in political content across platforms. Research on Chinese social media demonstrates that political information tends to be, on average, one-sided and tilted towards the Chinese Communist Party’s goals across platforms.<sup>6</sup> So, differences in political ideology across platforms are unlikely to explain differences in user behaviour in survey analysis. To strengthen this conclusion, we also test this alternative explanation with an Internet survey experiment.

Our main contribution is to specify which technological design features facilitate or inhibit political expression. Based on 112 semi-structured, qualitative interviews with product managers

and IT experts at Baidu, Tencent, and Sina Corporation as well as Internet users (see supporting information for details), we discovered that technological designs are optimized towards one core function supported by a combination of features, which we systematically describe in terms of technological affordance to build hypotheses. Based on a nationally representative survey and an Internet survey experiment, we find that platforms aiming to make users into a source of information through public, information-centered communication, such as the Twitter-like Weibo, are more conducive to political expression; while platforms built to optimize building social connections through private, user-centered communication, such as the WhatsApp and Facebook-like WeChat, tend to inhibit political expression.

Our second contribution is to investigate the role of the authoritarian political context in political talk. Scholars debate whether technology strengthens democracy or authoritarianism. Optimists point to the Internet's possibility to facilitate mobilization and organization, provide resources for resistance by political activists, and attract international attention to domestic protests;<sup>7</sup> while skeptics stress authoritarian governments' capability to actively use new technologies to their advantage and the Internet's possibility to prolong the rule of authoritarian regimes.<sup>8</sup> Critics point out normative bias towards "Western" values and a narrow focus on formal politics of the state. They call for a pragmatic approach that examines how Internet users make use of the online channels to engage in issues they care about without democratization as the end goal.<sup>9</sup> Here we follow this approach focusing on everyday political talk of Internet users on China's cyberspace taking into account the broader political context.<sup>10</sup> We argue, and find, that the impact of technology is stronger when users believe the authoritarian state tolerates discussion, but is less important when users approach politically sensitive topics.

This article proceeds as follows. We begin with a discussion of authoritarian deliberation and online platforms in China, highlight the effects of technological design and the importance of political sensitivity in Chinese cyberspace and present our hypotheses based on qualitative interviews. To test our hypotheses, we rely on two studies – a nationally representative survey and an online survey experiment. Section three presents research design, variable operationalization and survey results of the nationally representative survey, while section four introduces research design, treatments and results of the online survey experiment. Section five briefly summarizes the key empirical findings and section six deals with alternative explanations. Finally, the article concludes with political implications of the findings.

### **Authoritarian Deliberation and Online Platforms in China**

Although scholars' definitions of deliberation differ, most would agree that deliberation is a mode of communication in which participants in a political process offer and respond to the substance of claims, reasons, and diverse perspectives in ways that generate persuasion-based influence. He and Warren define deliberation as a mode of communication in which political decision-making takes place.<sup>11</sup> Authoritarian and democratic deliberation differ in the power distribution of the decision resulting from deliberation, with authoritarian deliberation more concentrated and hierarchical, and democratic deliberation more dispersed and egalitarian. Jiang has applied the concept of authoritarian deliberation to online political discussion, but adopted a broader definition, referring to dialogic deliberation and everyday political talk among Chinese Internet users.<sup>12</sup> This broader definition is also in line with the call for going beyond the democratization perspective to examine the Internet's role in China and focusing on practices of Internet users.<sup>13</sup> Many practices are political without pursuing overt political agendas, such as, netizens engaging

self-mockery and social critique, debating race and national identity, etc.<sup>14</sup> These expressions contribute to a more inclusive communication environment preparing grounds for meaningful deliberation about public affairs and engaged citizenship.<sup>15</sup> Building on this literature we focus on two aspects of authoritarian deliberation: everyday talk among netizens on the Chinese Internet and the political boundaries of communication defined by the Chinese authoritarian state within its territorial boundaries.<sup>16</sup> We explore the settings and structure within which political discussion occurs.<sup>17</sup> Our focus is the extent to which technological design facilitates or hinders political expression.

### ***Effects of Technological Design***

To systematically assess the role of the technological design of social media platforms in shaping people's communication behaviour, we rely on research on affordances from communications and computer science. Technology affordances refer to the action possibilities of the technology.<sup>18</sup> Affordance is a relative and relational concept in that the action possibilities are constructed by the interactions between users and technologies. Affordances never determine an action, but suggest possible actions.<sup>19</sup> Studying technological design through the lens of affordances allows us to systematically compare and connect design, user perception, and action.

Norman, in his focus on technological design, distinguishes between designed affordances and action possibilities readily perceived by users.<sup>20</sup> A good design will match the designed affordances with perceived affordance by users and is achieved through platform architectures. Platform architectures, involving the rules or codes that regulate interaction on these platforms, are constantly evolving and differ across platforms, depending on the goals, cultures and business models of the specific corporations.<sup>21</sup> To understand designed affordance and platform

architectures, we need to begin with an understanding of the commercial rationale of social media companies. When designing social media platforms, social media companies have a commercial rationale - generating revenue, a key source of which is a large user base attracted by the specific social media platform's designed affordances.<sup>22</sup> While users have some agency in determining how to use a given platform, designed affordances highlight the extent to which social media companies channel user actions towards a given platform's pre-determined core functions. Our expert interviews indicate that social media platforms concentrate on one core function per platform, addressing one core user need with a commercial, not a political, purpose in mind.

Sina Weibo was initially a Chinese copy of Twitter, but later started to incorporate more social features.<sup>23</sup> It is the only vibrant Chinese micro-blogging platform nowadays, with 376 million monthly active users in September 2017.<sup>24</sup> Similar to Twitter, Weibo was designed as a public platform with information-centered communication and its core function emphasizes production of information: enabling citizens to become the source of information.<sup>25</sup> This designed affordance is readily perceived by users. In users' words: "Weibo is like a square [...]: everyone can voice their opinions, regardless of whether they know each other."<sup>26</sup> Weibo organizes communication based on the content of the shared information, reducing the costs of following and sharing information and opinions. For example, forwarding information to others on Weibo and spreading information to other platforms each require only a few clicks and very little user effort. We call this feature of Weibo - allowing information transmission both within and outside of Weibo - outward orientation. Moreover, posts are publicly available to every Weibo user, unless users actively restrict access. Weibo's privacy settings promote public access to information shared among large networks of strangers.<sup>27</sup> According to one user:<sup>28</sup>



“Information [...] can be shared and forwarded by a significantly larger audience in a very short time through Weibo... (On Weibo) I publish a piece of news, others might see and forward it; and this chain of forwarding the post can go on from one to thousands of people. At the end, everyone knows this issue. This is one reason why many people are still using Weibo.”

Weibo’s key features, namely privacy settings, information-centered communication and outward orientation, are built around its core function: making users into the source of information.

Conversely, WeChat was designed to maintain intimate social relationships between friends, family, and acquaintances, satisfying social needs.<sup>29</sup> WeChat is the most popular instant messenger in China, with 980 million monthly active users in late 2017.<sup>30</sup> To achieve its core function, WeChat offers more interaction options than Weibo. WeChat divides information dissemination and communication about common interests into an instant messenger, similar to WhatsApp, called GroupChat, and a Facebook wall called Moments. In both communication environments, communication is organized around users, with information dissemination second; only links created by public WeChat accounts, certain online websites, or mainstream media accounts can be forwarded within WeChat, and it is impossible to forward information to other social media platforms.<sup>31</sup> We call this feature of WeChat inward-orientation. Forwarding information is costly and time-consuming. As one user said of WeChat: “I usually do not forward comments, because it is very complicated.”<sup>32</sup> Moreover, WeChat provides a secure private environment by restricting public information dissemination; information is disseminated through layers of private acquaintance-based networks, as people can only connect through knowing each other personally or a friend’s introduction. In users’ words: “WeChat is like a living room [...], you will only invite people who you know to your living room”.<sup>33</sup> Although WeChat has the

function of public accounts enabling public information dissemination, there are restrictions: WeChat public account users are allowed to post once per day. And they get to choose what comments to display underneath each post, which largely impedes users' ability to follow discussions.<sup>34</sup> These restrictions further demonstrate that information dissemination and discussion is placed second on WeChat. WeChat's key features, namely privacy settings, user-centered communication and inward orientation, centre around its core function: fostering intimate social relationships.

We argue that multiple design elements bound by the core function create varying circumstances within which discussions occur. Prior studies have focused on individual platforms and individual features of these platforms, limiting our ability to understand the impact of technological design of social media. For example, studies concentrating on the communication structure on micro-blogs have found that Twitter and Weibo afford information dissemination and online expression.<sup>35</sup> Features, such as, public tweet, follower relations, the retweet network of "who retweet whom", are found to be fundamental to information dissemination and expression on Weibo.<sup>36</sup> WeChat's restriction to private networks has not been found to be correlated with discussion of social and political topics.<sup>37</sup> In contrast to these prior studies we emphasize the importance of the combination of features in support of the designed affordances. Due to differences between Weibo and WeChat in communication mode (user- or information-centered) and privacy settings (public or private), we derive the following hypothesis: Weibo users are more likely to voice opinions about politics (Weibo hypothesis).

WeChat's division into GroupChat and Moments provides further opportunity to explore the extent to which technological design matters within one platform. Similar to the Facebook wall, Moments facilitates information dissemination from one person to many, but unlike

Facebook, it only allows users who know each other to communicate. One interviewee described Moments as: “singing in a karaoke bar whereby no matter how loud you sing, it won’t transmit the boundary of the bar to outside”.<sup>38</sup> Moments allows users to disseminate information to all or some of their contacts, but grouping is time-consuming and inconvenient.<sup>39</sup> Because of these technological limitations interrupting the flow of information, on WeChat users prefer to discuss on GroupChat, where following a discussion is easier. An instant messenger, GroupChat allows for real-time group conversations in various formats, such as text, voice, and short videos. These features allow people to personalize communication. Users can invite a friend to join a group of people who previously didn’t know each other. Users describe these differences between GroupChat and Moments as: “I will select a few WeChat groups to share information and voice opinion, while I seldom post information and opinions onto my Moments. .... Discussion takes place more frequently and can dive deeper in a private setting (such as WeChat GroupChat).”<sup>40</sup> GroupChat creates an environment for discussion, while Moments is more like the karaoke bar, where one person disseminates an opinion to many people in an audience. We therefore hypothesize that WeChat users who join GroupChat are more likely to discuss political issues online than WeChat users who do not join GroupChat (WeChat GroupChat hypothesis).

### ***Importance of Political Sensitivity in Chinese Cyberspace***

Although social media, blogs and micro-blogs in particular, is found to provide a medium for sophisticated political expression<sup>41</sup>, the boundaries of political expression are manipulated and controlled by the Chinese state.<sup>42</sup> To some extent, the Chinese state tolerates and even actively promotes online discussion of public affairs. The CCP has actively shaped the public’s perception of democracy with an emphasis on managed political participation and the importance of the

party's leadership.<sup>43</sup> On the one hand, Chinese public officials use online discussion to obtain feedback on the government's policies and goals.<sup>44</sup> On issues where mainstream media and the state do not set the agenda, activists have used blogs to build communities.<sup>45</sup>

On the other hand, the state also builds structures that function as a "safety belt" to control the content of the discussion and guide it in a direction supportive of the goals and policies of authoritarian rulers, if necessary. China has built an extensive system for Internet surveillance and manipulation. It includes: the configuration of Internet gateway infrastructure<sup>46</sup>, blocking websites, filtering, automated review<sup>47</sup>, Internet policing<sup>48</sup>, regulation of Internet service providers and web administrators<sup>49</sup>, and employment of web commentators to shape and alter public debate<sup>50</sup>. As the state clamps down on political expression, Internet users have grown savvy at expressing themselves through political satire and ironic use of politically correct language to subvert controls.<sup>51</sup>

This balance between opening and limiting space for public discourse is achieved through institutions. Chinese media are embedded in the Chinese political system, and, through this institutional infrastructure, the Chinese Communist Party maintains the capacity to manage boundaries of public discourse and concentrates on the interest of political survival.<sup>52</sup> Since 2014, the Cyberspace Administration of China (CAC), found by the leadership under Xi Jinping, has become the more important institution in managing online information compared to the propaganda system.<sup>53</sup> In relying on institutions to restrict boundaries of public discourse, China resembles other one-party regimes that have a greater capacity to restrict information flows and thus can use market-based and new media to their advantage.<sup>54</sup>

People learn about the boundaries for public discourse by discovering the rules these institutions impose and the rules of the official language game.<sup>55</sup> Despite changes in the opening

and closing of discursive space over time, generally speaking topics become more sensitive when they criticize political leaders or may lead to collective action and instability.<sup>56</sup> Not all discussion or actions on sensitive topics will incur coercion, because the state exercises uncertainty on the ground with regards to what is tolerated and what is forbidden.<sup>57</sup>

Chinese social media companies are embedded in this extensive institutional infrastructure, through which political elites enforce boundaries for political discourse. These boundaries affect users' communication behaviours. A comparative study of users' microblogging behaviours on Twitter and Weibo demonstrates that in contrast to Twitter, Weibo users avoid talking about organizations such as political parties or other institutions.<sup>58</sup> Because these boundaries are similar across social media platforms, we hypothesize that technological design affects political expression on non-sensitive political issues, but not when issues are sensitive (sensitivity hypothesis).

## **Study 1: National Survey**

### ***Data and Measurement***

We first use a nationally representative survey studying media behaviours and engagement, conducted by a Chinese university research center from May-July, 2014, henceforth called “media survey.” The survey was randomly sampled using the global positioning system (GPS) sampling technique. GPS sampling randomly selects respondents' geographical location, thus including migrant workers, a large social group excluded in most Chinese surveys.<sup>59</sup> The questionnaire was implemented by experienced, trained interviewers in face-to-face conversations. Information about the media survey including sampling information, descriptive survey statistics and the Chinese question wording are included in the supporting information.

### ***Measuring Voicing Opinions***

We created three dependent variables reflecting political discussion on topics with varying sensitivity: Discussing non-sensitive political topics online is an additive scale of two questions. The first asked how frequently respondents voiced opinions or commented on online current affairs or political news (*Wangluo Shishi Zhengzhi Xinwen*); the second asked how frequently respondents discussed current affairs or political news with friends online (*Wangyou*). According to our interviews, the Chinese phrasing “current affairs or political news” prompts people to think about non-sensitive, open topics tolerated and even encouraged in Chinese public discourse, such as health care reform, local news, anti-corruption campaigns, and major international news. An online survey experiment confirmed that netizens were more likely to report commenting on politics when the term contains “current affairs” (*Shishi*).<sup>60</sup> Discussing non-sensitive topics online ranges from 0 to 6, whereby higher numbers represent more frequent discussion (Cronbach’s  $\alpha = 0.84$ ). Sensitive political discussion online was captured via two dummy variables representing two distinct types of politically-sensitive content in China - whether respondents had ever criticized government officials or policy online, and whether they had ever discussed protest, demonstrations, or collective action online. While we would expect some bias in respondents’ answers on discussing protest, prior research demonstrates that survey respondents feel free to give truthful answers to such questions. A list experiment revealed no evidence for social-desirability bias regarding a similar question.<sup>61</sup>

### ***Measuring Technological Design***

In the first set of regressions among all Chinese Internet users surveyed, our key independent variables, Weibo use and WeChat use, were dummy variables, measured by asking whether respondents had used Weibo or WeChat in the past week. However, as explained earlier, WeChat

is a multi-functional platform split into Moments and GroupChat and only GroupChat facilitates online discussion. In order to test the WeChat GroupChat hypothesis, we conducted a second set of regressions among WeChat users only. In this set of regressions, the key independent variable, GroupChat use, is a dummy variable indicating whether respondents reported participating in GroupChat. Because the question wording also included GroupChat on the social media platform QQ, we included a dummy variable for QQ use as a control variable when testing the WeChat GroupChat hypothesis.

### ***Control Variables***

The extent to which social media users comment online may be influenced by numerous user characteristics external to the platform, chiefly a person's online social network size<sup>62</sup>, frequency of use<sup>63</sup>, privacy concerns<sup>64</sup>, and interest in the content distributed on the platform<sup>65</sup>. In order to address these possible alternative explanations, all models controlled for online network size, intensity of media use, interest in politics, VPN use, political efficacy, political trust, nationalism, and socio-demographics, which were recoded to run from 0 to 1. Details regarding control variables are included in the supporting information.

### ***Survey Results***

To test the Weibo and sensitivity hypotheses, we estimate the relationship between WeChat and Weibo use on voicing political opinions. We use ordinary least squares (OLS) regression for non-sensitive political discussion, and probit regressions for each of the sensitive political discussion variables. Detailed statistical results for all variables are included in Tables 1 and 2.

First, we investigate the relationship between WeChat and Weibo use on voicing opinions. As shown in Figure 1, Weibo use is highly positively correlated with *Discussing non-sensitive*

*political topics*. Weibo users discuss non-sensitive politics occasionally to sometimes, while WeChat users almost never do. Conversely, Weibo use is negatively correlated with *Criticizing government officials online* and unrelated to Discussing protest online. These results confirm the Weibo hypothesis and the sensitivity hypothesis: while Weibo facilitates the discussion of non-sensitive political topics, it appears to have a null, or even negative, effect for sensitive political topics. WeChat use, meanwhile, was statistically indistinguishable from non-WeChat use when discussing non-sensitive and sensitive topics. As expected, WeChat hindered political expression compared to Weibo, even on non-sensitive topics.

*Insert Figure 1 and Table 1 about here*

Second, we explore whether using the WeChat GroupChat function facilitates political expression compared to non-use (and therefore solely using Moments). Table 2 and Figure 2 display results for the WeChat GroupChat hypothesis. Internet users who do not use WeChat occasionally discuss non-sensitive political topics. WeChat users tend to express their political views even more rarely, unless they use GroupChat. The interaction term coefficient between WeChat use and GroupChat is positive (0.74) and statistically significant. This means that WeChat users who use GroupChat are roughly comparable to Internet users who do not use WeChat when expressing political views online. Only the GroupChat function, not Moments, achieves this effect, confirming the WeChat GroupChat hypothesis.

*Insert Figure 2 and Table 2 about here*

Together, these findings suggest that incentives built into WeChat and Weibo's technological design in order to optimize towards their core function facilitate political expression on Weibo and inhibit it on WeChat. Within WeChat, GroupChat facilitates political expression.



These findings are correlations based on nationally representative survey data. To investigate further whether the effect is driven by affordance, we therefore turn to an Internet survey experiment.

## **Study 2: Online Survey Experiment**

### ***Data, Method, and Measurement***

The experiment was conducted during an online survey sampling 1,489 Internet users from an online panel of over 1.6 million Chinese Internet users from May-June 2016. To increase external validity, we rely on available population parameters of Internet users - age, gender, education level and provincial level distribution of IP addresses - to draw a quota sample and then post-stratify the sample on core variables of interest - self-reported social media behaviour. This increases our confidence that results are generalizable to Chinese Internet users. Detailed sampling, post-stratification information, and Chinese question-wording are displayed in the supporting information.

The experimental treatments concern a specific issue: air pollution. Social media discussion on air pollution is a typical non-sensitive issue considered social but politically relevant.<sup>66</sup> Air pollution is considered by Internet users in our interviews an “open” topic where information can be freely circulated.<sup>67</sup> We selected a post mocking the seriousness of smog in Beijing that was widely circulated on both Weibo and WeChat in Winter 2015. The post shows an image stating: “This is not a thriller, but public square dancing on an early winter morning.” To our knowledge, this post was not censored by the Chinese propaganda authorities. 78% percent of our sample (n=1,118) had received the picture before.

## ***Treatment***

To control for content, the treatment varied not the image but the technological design of the platforms (see Figure 3). The 1,192 respondents who self-reported using both platforms (Weibo and WeChat) were randomly assigned to one of two groups: one group saw the picture within Weibo, where forward and comment icons are displayed underneath the picture; the other group saw the same picture on WeChat Moments, where forwarding is hidden in a menu on the right-hand side. As explained earlier, Moments, an integrated component of WeChat, allow users to disseminate information, yet the limitations built into its technological design make commenting and following a discussion more costly in terms of time and effort than on Weibo. Treatments were only shown to users who reported using both WeChat and Weibo and were, therefore, familiar with both platforms.<sup>68</sup> After seeing one of these two pictures, participants were asked: “If you receive this picture on TREATMENT [Weibo, WeChat], what would you do?”

*Insert Figure 3 about here*

Obviously, these treatments have limitations because they prime users to think about the specific platforms, so the effects may be partially affected by perceptions of these platforms not related to its technological features. To account for these perceptions, we conducted manipulation checks concerning whether people’s perceptions of differing political content or censorship on the platforms correlated with the treatment. A balancing table and detailed information regarding the manipulation check are displayed in the supporting information. The results are discussed below.

## ***Measuring Voicing Opinions***

We use three measures to assess whether the treatment encourages people to voice an opinion about the issue. All measures are dummy variables. *Forwarding with comments*, and *Forwarding*

*to other social media platforms* indicate whether a person reported forwarding the message within the same platform or to other platforms, while *Discussing with friends* indicates whether a person reported discussing air pollution with friends (online or offline).

### ***Experimental Results***

Figure 4 displays the results of probit regression models on three dependent variables in the experiment.

*Insert Figure 4 about here*

We detect significantly more positive effects when receiving the image on Weibo for all three measures. People who receive the message on Weibo were 17% more likely to forward the message, adding their own comment on the same platform, compared to receiving the message on WeChat, significant at the 0.1 level. These effects increase in size and statistical significance for forwarding the message to other social media platforms: people who receive the message on Weibo are 21% more likely to forward it compared to those receiving it on WeChat, significant at the 0.05 level. When asked about real-life actions, people were 31% more willing to report that they would discuss the issue with friends after receiving the message on Weibo, significant at the 0.01 level. Weibo's design encouraged people to more strongly voice their political opinions than WeChat, confirming the Weibo hypothesis.

### **Summary**

We systematically compare social media platforms concerning technological design and investigate its effects on political expression in an authoritarian context. Our survey findings support the hypothesis that Weibo's technological design facilitates the expression of political

views, while WeChat limits it. However, these results depend on the boundaries for political discourse set by the state. As expected, technological design only matters when discussing non-sensitive political topics. Our experiment further demonstrates a strong positive relationship between receiving a message and voicing an opinion on Weibo, on other social media platforms, and with friends. Receiving the message on WeChat had a more limited positive effect. Our survey analysis reveals that this positive effect is mainly driven by WeChat's GroupChat function. People who solely use Moments are the least likely to voice political views, while GroupChat users are more likely to do so. This positive correlation can only be detected by including the interaction term between GroupChat and WeChat. Even though the correlations we detect may appear small, when considering each network's aggregate number of users - 376 million monthly active Weibo users<sup>69</sup> and 980 million monthly active WeChat users<sup>70</sup> - they are quite impressive.

### **Alternative Explanations and Caveats**

Our results allow us to address several alternative explanations. First, one might argue that our technological design measures are not specific enough to pick up effects. This argument refers to correlations of WeChat and Weibo use, displayed in figure 1. In response, we found evidence that other factors, especially a person's network size, privacy concerns, and political efficacy, influence political talk on non-sensitive topics online. Since we control for these alternative explanations in the regression, we are fairly confident that the remaining relationship picked up by Weibo and WeChat use is mainly driven by the platforms' technological design. To strengthen our confidence about technological design, we also considered WeChat's separation into GroupChat and Moments, finding evidence that GroupChat use is positively correlated with voicing opinions. Moreover, the experimental treatment displays the design of both platforms, allowing us to tie

results more directly to technological design.

A similar argument could be made about our experimental treatments, which prompt people to think about their perceptions of platforms as a whole, including their content (i.e., not a feature of technological design). To address these concerns, after treatment, we asked experimental participants to compare Weibo and WeChat on perceived political content, censorship, and functions associated with technological design. We detected no differences across treatment groups regarding perceived censorship or political content associated with the platform. However, we found that participants were more likely to choose Weibo over WeChat regarding the platform's affordance for political expression after viewing the Weibo treatment, further strengthening our confidence that the treatments manipulated technological design features and users' perceived affordances of the features.

Finally, one may argue that face-to-face surveys do not produce reliable results about political expression in an authoritarian regime, because people are incentivized to hide their true beliefs and political behaviour. It is commonly known that large numbers of Chinese netizens criticize leaders and policy online; Chinese netizens also organize collective action online. While social desirability bias is obviously an important concern that must be addressed in surveys in China and other authoritarian contexts, we believe this bias does not explain the results presented here. Survey research in China finds response bias to some politically-sensitive questions<sup>71</sup>, but not on all questions related to politics. For example, regarding criticism of political leaders, a list experiment revealed no evidence of social desirability bias.<sup>72</sup> At least regarding voicing criticism of leaders, prior research demonstrates that survey respondents feel free to give truthful answers in face-to-face surveys conducted by trained interviewers. We are therefore confident that the

conditional effect of technological design depending on political issue sensitivity can be picked up in the face-to-face media survey.

## **Conclusion**

Advocates and critics of deliberation emphasize that the conditions under which political talk takes place influence how and what is expressed. Our results reveal how social media platform design contributes to political expression online. Unlike previous studies, we do not argue that one specific platform design feature, mostly social network structure, explains differences across social media platforms. As our expert interviews reveal, technological features cannot be separated from one another, as together they create a commercial product that optimizes one core function. Understanding this core function is key to understanding the incentive structure built into social media. We argue that the core function and technological design supporting this core function matter for political talk online. Moreover, we provide experimental evidence supporting that the effect of technological design is tied to its core function.

Rather than emphasizing the affordance of a specific feature, we suggest that future research consider a larger set of technological features (i.e. information-centered versus user-centered, public versus private, network structure and size) linked together by the designed affordance. Social media research is already moving in this direction, as scholars have started to move away from focusing on Facebook or Twitter towards conducting comparative analysis between platforms. These studies indicate that Twitter tends to be used to engage with breaking news and Facebook to plan and organize collective action during protest.<sup>73</sup> Since Weibo and WeChat were inspired by their American counterparts, future research may probe whether Twitter also promotes political discussion more strongly than WhatsApp or Facebook.

Finally, our results have important implications for discussions about the Internet's political consequences. This study reinforces the notion that the effects of new communication technologies depend on a political context. Diamond finds that the impact of new communication technology depends on the state's political organization and strategy.<sup>74</sup> In relying on institutions to restrict boundaries of public discourse, China resembles other one-party regimes that have a greater capacity to restrict information flows and thus can use market-based and new media to their advantage.<sup>75</sup> Our findings imply that the Chinese state is able to establish boundaries for political discourse through these institutions. Our findings show that concerns about these boundaries override the effects of the communication structure imposed on users within social media platforms. Of course, Chinese netizens continue to criticize political leaders and discuss protest online, as much work on the Chinese Internet has demonstrated, but talk about politically-sensitive topics does not seem to depend much on the technological setting within which such discussion occurs. In other words, whether Chinese political discourse moves towards WeChat or Weibo only matters when non-sensitive topics are discussed; concerns about criticizing officials and talk about protest are equally likely to affect users across platforms. To understand the impact of social media on political expression we need to take into account how they are designed and the broader political context within which political discourse takes place.

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4 Halpern and Gibbs, "Social Media"; Klinger and Svensson, "The Emergence"; Matamoros-Fernández, "Platformed Racism"; Nam, Lee and H.W. Park, "Measuring Web Ecology".

5 Delli Carpini, Cook, and Jacobs, "Public Deliberation"; Mutz, "Is Deliberative Democracy"

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- 6 Hassid, “Safety Valve”; King, Pan & Roberts, “How Censorship”; “Reverse-engineering censorship”; Gallagher, and Miller, “Can the Chinese Government”.
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- 8 MacKinnon, *Consent of the Networked*; Morozov, *The Net Delusion*.
- 9 Meng, “Moving Beyond Democratization”; Herold and de Seta, “Through the Looking Glass”; Jiang, “Authoritarian Informationalism”.
- 10 Diamond, “Liberation Technology”.
- 11 He and Warren, “Authoritarian Deliberation”;
- 12 Jiang, “Authoritarian deliberation”.
- 13 Meng, “Moving Beyond Democratization”; Herold and de Seta, “Through the Looking Glass”.
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- 16 Jiang, “Authoritarian deliberation”; MacKinnon, *Consent of the Networked*.
- 17 Distelhorst, “The Power”; Manion, *Information for Autocrats*; Teets, “Let Many Civil Societies Bloom”; Toepfl, “Innovating Consultative Authoritarianism”.
- 18 Gibson, “The Theory of Affordances”; Norman, *The Design of Everyday Things*; Norman, *The Design of Future Things*.
- 19 Majchrzak, et al., “The Contradictory Influence”; Faraj and Azad, “The Materiality of Technology”; Hutchby, “Technologies, Texts and Affordances”; Majchrzak and Markus, “Technology Affordances”; Fayard and Weeks, “Affordances for Practice”.
- 20 Norman, *The Psychology of Everyday Things*; “Affordance, Conventions, and Design”.
- 21 Van Dijck, *The Culture of Connectivity*; Poell, Rajagopalan and Kavada, “Publicness on Platforms”.
- 22 Stockmann and Luo, “Which Social Media”; Gillespie, “The Politics of ‘Platforms’”.
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- 25 Interview with a Weibo marketing researcher (73359), April 2015.
- 26 Interview with 75154, April 2015.
- 27 Su, Lee, & Lin, “Does Site Architecture Matter?”.
- 28 Interview with 80643, November 2015.
- 29 Interview with a marketing manager of a large social media company in China (73583), February 2015.



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- 32 Interview with 87673, November 2015.
- 33 Interview with 75154, April 2015.
- 34 Stockmann and Luo, “Which Social Media”.
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- 40 Interview with 80238, Dec 2015.
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- 43 Hu, “Popular Understanding”.
- 44 Hartford, “Dear Mayor”; Jiang and Xu, “Exploring Online Structures”; Reilly, Strong State, Smart State; Chen, Pan, and Xu, “Sources of Authoritarian Responsiveness”; Truex, “Consultative Authoritarianism”.
- 45 Hassid, “Safety Valve”.
- 46 Boas, “Weaving the Authoritarian Web”.
- 47 Chase, and Mulvenon, You’ve got Dissent!; King, Pan, and Roberts, “Reverse-engineering Censorship”.
- 48 Brady, Marketing Dictatorship.
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- 53 Stockmann, “Responsive Authoritarianism”; Creemers, “Cyber China”.
- 54 Stockmann, “Responsive Authoritarianism”; Stier, “Democracy, Autocracy and the News”.
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- 59 Landry and Shen, “Reaching Migrants”.
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- 63 Su, Lee, and Lin, “Does Site Architecture Matter?”.
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## Tables and Figures

Table 1: Regression Results of WeChat and Weibo Use on Political Discussion Online among Internet Users

	OLS	Probit	Probit
VARIABLES	<i>Discussing non-sensitive political topics online</i>	<i>Criticising government officials online</i>	<i>Discussing protest online</i>
Weibo user	0.40*** (0.15)	-0.33** (0.14)	-0.29 (0.19)
WeChat user	-0.11 (0.11)	-0.46 (0.35)	-0.42 (0.44)
<i>CONTROL VARIABLES</i>			
Size of online network	2.25*** (0.32)	1.58*** (0.57)	1.21** (0.56)
Frequency of getting information from traditional media (TV)	-0.17 (0.20)	-0.37 (0.25)	-0.99*** (0.19)
Frequency of getting information on social media	0.03 (0.18)	0.04 (0.27)	0.13 (0.40)
Following political news online	-0.17 (0.26)	0.90*** (0.25)	0.68*** (0.24)
Trust in government	0.53 (0.36)	1.54*** (0.48)	1.92*** (0.69)
Proud to be Chinese	-0.53* (0.30)	-1.77*** (0.54)	-1.30** (0.60)
Political efficacy	0.83*** (0.24)	0.39 (0.35)	0.42 (0.30)
Uses VPN	0.50** (0.22)	-0.07 (0.24)	-0.04 (0.31)
Age	-0.85 (1.13)	-1.13 (1.09)	-0.01 (1.62)
Age squared	0.81 (1.40)	1.05 (1.63)	-0.81 (2.40)
Education	0.31 (0.21)	0.32 (0.27)	0.23 (0.41)
Male	0.11 (0.09)	-0.05 (0.14)	-0.06 (0.22)
Migrant worker	-0.18 (0.11)	0.02 (0.14)	-0.01 (0.15)

CCP member	-0.40**	-0.23	-0.41
	(0.16)	(0.28)	(0.27)
Constant	0.10	-1.96***	-1.96**
	(0.40)	(0.67)	(0.81)
Observations	1,124	1,132	1,132
R-squared	0.25		
Pseudo R-squared		0.18	0.21

Note: Robust standard errors in parentheses; Survey design characteristics taken into account; Pseudo R-squared values obtained from an equivalent regression with survey characteristics not taken into account.

\*\*\* p/z<0.01, \*\* p/z<0.05, \* p/z<0.1

Data: Media Survey, 2014.

Table 2: OLS Regression Results of WeChat GroupChat Use on Non-sensitive Political Discussion among Internet Users

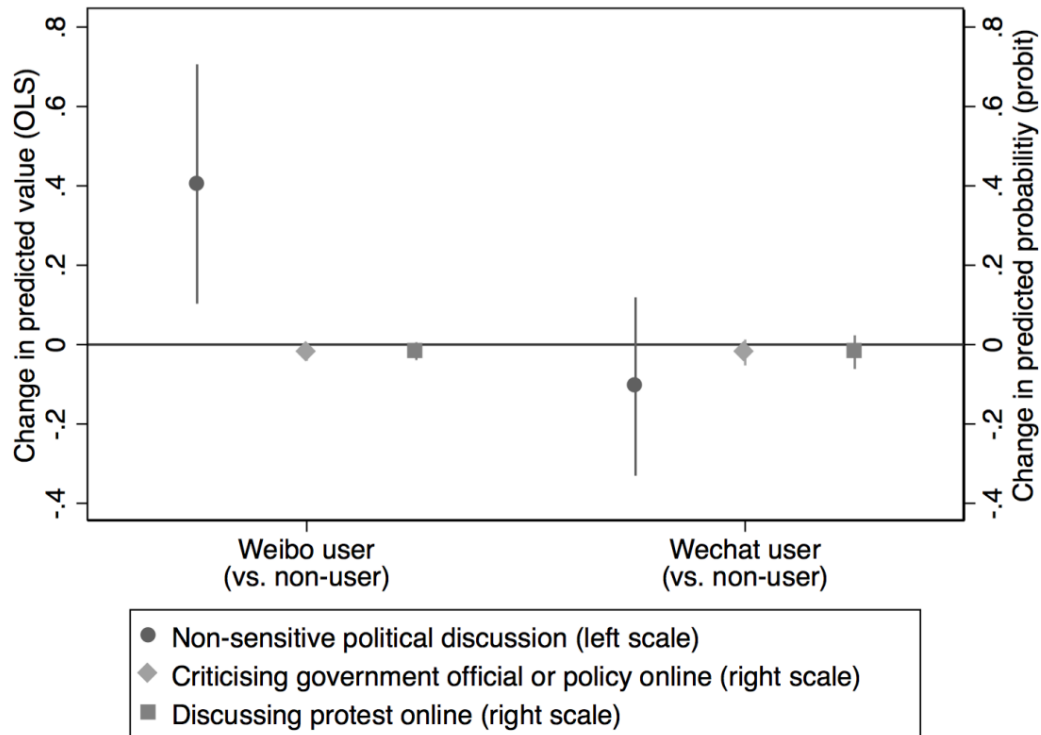
VARIABLES	<i>Discussing Non-sensitive Political Topics Online</i>
WeChat user	-0.18 (0.15)
Uses GroupChat function on WeChat and/or QQ	-0.72** (0.33)
GroupChat x WeChat user interaction	0.80*** (0.30)
<i>CONTROL VARIABLES</i>	
Weibo user	0.41*** (0.15)
QQ user	0.08 (0.21)
GroupChat x QQ user interaction	-0.19 (0.26)
Size of online network	2.26*** (0.32)
Frequency of getting information from traditional media (TV)	-0.17 (0.20)
Frequency of getting information on social media	0.05 (0.19)
Following political news online	-0.16 (0.25)
Trust in government	0.54 (0.36)
Proud to be Chinese	-0.52* (0.30)
Political efficacy	0.83*** (0.25)
Uses VPN	0.51** (0.22)
Age	-0.91 (1.10)
Age squared	0.77 (1.39)
Education	0.32 (0.21)
Male	0.10 (0.09)
Migrant worker	-0.18*

	(0.11)
CCP member	-0.38**
	(0.16)
Constant	0.15
	(0.40)
Observations	1,124
R-squared	0.25

Note: Robust standard errors in parentheses; Survey design characteristics taken into account.

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

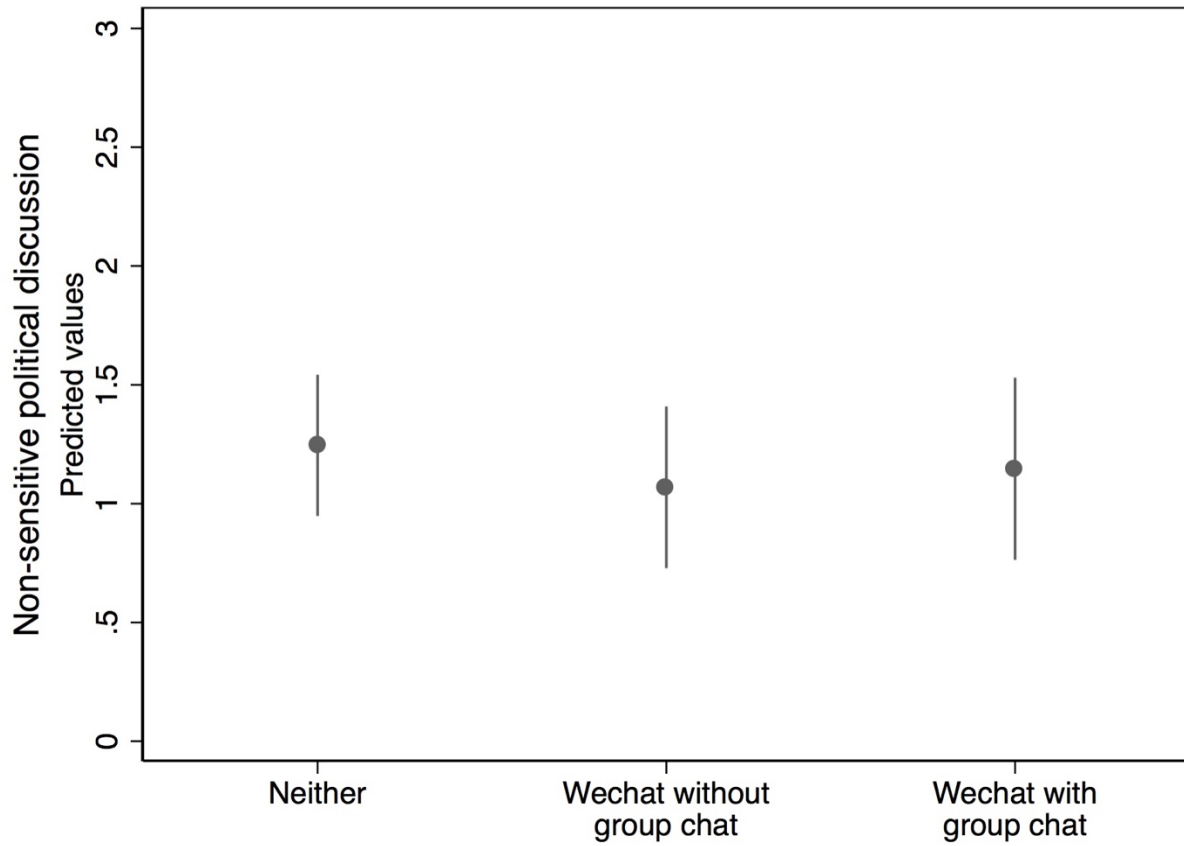
Data: Media Survey, 2014.



**Figure 1: Survey Results on Weibo and Sensitivity Hypotheses <sup>a</sup>**

**Data: Media survey, 2014**

<sup>a</sup> Figure displays predicted value for OLS regression displayed in table 1 (left-hand column) and predicted probabilities for probit maximum likelihood regressions displayed in table 1 (middle and right-hand column). Predicted probabilities of WeChat and Weibo were calculated, keeping all other variables constant. The other platform was held constant at use=1 when calculating coefficients.



**Figure 2: Survey Results on WeChat GroupChat Hypothesis<sup>1</sup>**

**Data: Media survey, 2014**

<sup>1</sup> Figure displays predicted values for the OLS regression displayed in table 2. Predicted values were calculated for Internet users who do not use WeChat, Weibo or QQ (“neither”) as a baseline for comparison and people who use WeChat (but not Weibo or QQ) as GroupChat use changes.

### Weibo Group:

If you receive the following picture on Weibo, what would you do on Weibo?



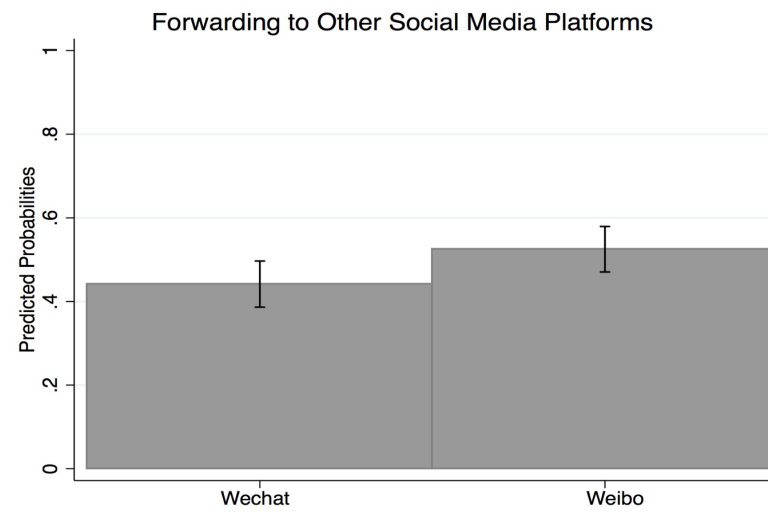
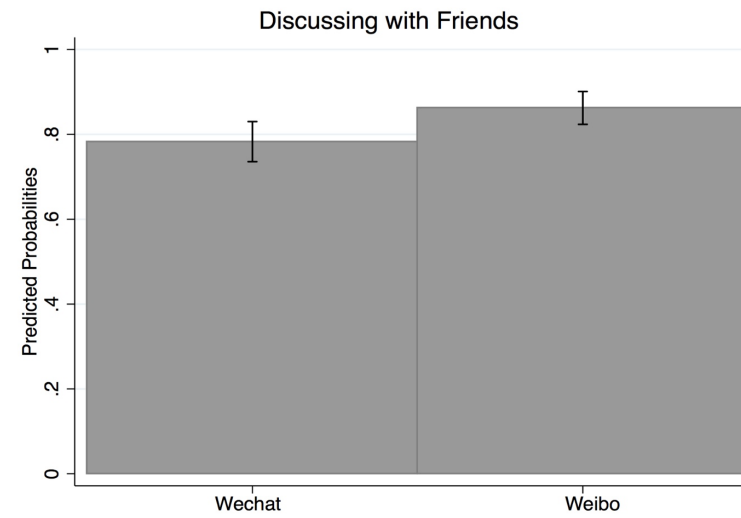
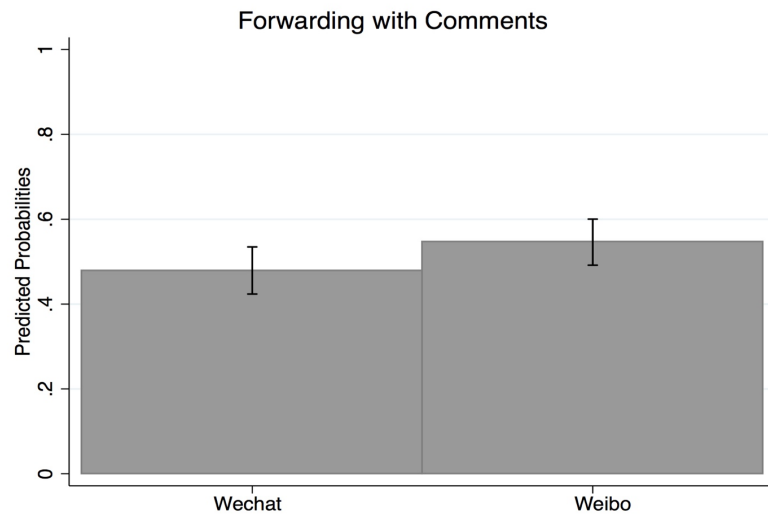
### WeChat Group:

If you receive the following picture on WeChat, what would you do on WeChat?



Figure 3: Experimental Treatments

Data: Online Media Use Survey, 2016



**Figure 4 Effects of Experimental Treatments**

**Data: Online Media Use Survey, 2016**